



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/974,878	10/12/2001	Isamu Hotta	040302-0278	7600
22428	7590	10/20/2004	EXAMINER	
FOLEY AND LARDNER SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			TRAN, DIEM T	
			ART UNIT	PAPER NUMBER
			3748	

DATE MAILED: 10/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/974,878

Applicant(s)

HOTTA ET AL.

Examiner

Diem Tran

Art Unit

3748

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 1 and 7-11 is/are allowed.
- 6) ☒ Claim(s) 2-6, 12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

- This office action is in response to the amendment filed on 8/3/04.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 2-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Frost et al. (US Patent 5,776,417).

Regarding claims 2, 4, Frost discloses an exhaust emission control device of an internal combustion engine, comprising:

an underfloor catalyst wherein a CO oxidation catalyst and a water trap are coated on a support (see col. 2, lines 53-60, col. 3, lines 14-19); and

a HC trap disposed upstream of the water trap (see Figure 1, see col. 7, lines 9-10, 24-25).

Regarding claim 3, Frost further discloses the water trap being disposed upstream of the CO oxidation catalyst (see col. 2, lines 21-30).

Regarding claims 5, 6, Frost further discloses that the water trap and CO oxidation catalyst are disposed as layers or mixed to each other (see col. 3, lines 14-22).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over by Frost et al. (US Patent 5,776,417) in view of Mizuno et al. (US Patent 6,029,441).

Regarding claim 12, Frost discloses an exhaust emission control device of an internal combustion engine, comprising:

an underfloor catalyst wherein a low temperature light-off CO oxidation catalyst and a water trap are coated on a support (see col. 3, lines 14-19);

a secondary air supply unit disposed upstream of the underfloor catalyst (see Figure 9); however, fails to disclose a HC trap disposed upstream of the secondary air supply unit. Mizuno teaches that it is conventional in the art, to utilize a HC trap disposed upstream of the secondary air supply unit (see Figure 2; see col. 8, lines 51-63).

It would have been obvious to one having ordinary skill in the art at the time the invention was made, to have utilized said HC trap disposed upstream of the secondary air supply unit as taught by Mizuno in the Frost device since such would have increased the efficiency of the emission control system.

Allowable Subject Matter

Claims 1, 7-11 allowed.

Response to Arguments

Applicant's arguments filed 8/3/04 have been fully considered but they are not deemed-persuasive.

In the amendment filed on 8/3/04, the Applicant argued that the Frost reference fails to disclose that the HC trap is disposed upstream of an H₂O trap and a CO oxidation catalyst and the H₂O trap are coated on a support. The Examiner respectfully disagrees, the Frost reference discloses that a second water trap is positioned downstream of the catalyst i.e. downstream of the HC trap (see col. 7, lines 9-10, 24-25) and a CO oxidation catalyst and the H₂O trap are coated on a support (see col. 2, lines 53-60, col. 3, lines 14-21).

Conclusion

Any inquiry concerning this communication from the examiner should be directed to Examiner Diem Tran whose telephone number is (703) 308-6073. The examiner can normally be reached on Monday -Friday from 8:30 a.m.- 5:00p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion, can be reached on (703) 308-2623. The fax number for this group is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.



Diem Tran
Patent Examiner
Art unit 3748

DT
October 14, 2004



THOMAS DENION
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700